

Research Improves Minority Health

Medical advances have provided Americans with the potential for longer, healthier lives—but not all Americans are benefitting equally.

Health statistics highlight poorer health in racial and ethnic minorities, including African American, American Indian, Alaska Native, Asian American, Hispanic American, Native Hawaiian and Pacific Islander communities. Differences in health linked to social, economic and environmental disadvantages—in addition to genetics—are known as health disparities.

At the Food and Drug Administration (FDA), the Office of Minority Health (OMH) collaborates with other FDA centers and offices, government agencies and academic institutions to gain a better understanding of health disparities through scientific research.

OMH helps fund research that assists FDA scientists in evaluating products and making regulatory decisions, taking into account their implications on minorities, says OMH Director Jonca Bull, M.D. “It’s important to have good data to ensure the best outcomes for all.”

A few of OMH’s research collaborations are highlighted here.

Molecular Blood Typing

Sickle cell disease refers to a group of inherited red blood cell disorders in



April is Minority Health Month

FDA’s Office of Minority Health (OMH) helps identify agency actions that can help reduce disparities in health and health care. There will be several Consumer Updates this month highlighting the work of this office:

- The work being done to lessen health disparities
- The importance of including minorities in clinical trials
- Research and collaborations

To read these Consumer Updates, go to: <http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm347896.htm>

And to learn more about OMH Director Jonca Bull’s perspective on her office’s top priorities, go to: <http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm335589>

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which the abnormally shaped cells clog up blood vessels, causing pain, organ damage, and potentially severe complications, such as strokes. In the U.S., sickle cell disease affects mainly African Americans, according to the National Institutes of Health (NIH).

“An important treatment that is commonly used is to exchange the ‘bad’ red cells with ‘good’ red cells,” says Richard Davey, M.D., director of the Division of Blood Applications within FDA’s Center for Biologics Evaluation and Research (CBER). But after a number of blood transfusions, patients may get sensitive to antigens on donor red blood cells (substances on the cells that elicit an immune response) and develop a resistance to transfusions, adds Davey. “It gets harder to find compatible blood for them.”

Traditional blood typing tests use serology—a measure of antibodies in the blood serum—to find blood matches. “We’re moving beyond that into the molecular area where we test a blood donor’s DNA,” says Davey. “It’s much more precise and many donors can be screened more quickly.”

CBER is creating DNA reference panels—plates of DNA probes—that can be used in FDA’s review and approval process to check the accuracy of these new molecular blood typing kits.

Blood Thinner Use: Warfarin

Research at the National Human Genome Research Institute examines how race, ethnicity, and social and economic status affect decision making for genetic testing when prescribing the blood thinner warfarin. One of the most widely prescribed drugs in the world, warfarin is used to prevent blood clots that can lead to heart attacks, strokes and death.

The drug is challenging for doctors to prescribe because the ideal dosage for each person varies widely—with race and ethnicity possible factors—and is hard to predict. Genetic testing may help doctors more accurately prescribe the proper dosage of warfarin to people at high risk for heart problems.

Disparities in Asian and Pacific Islander Americans

Through the Daniel K. Inouye College of Pharmacy at the University of Hawai’i at Hilo, Daniel Hu, Pharm.D., is investigating health disparities in several minorities, focusing on medication adherence.

“The purpose of our study was to examine the perceptions of health care professionals on health care disparities experienced by Asian and Pacific Islanders, to identify gaps in knowledge and potential solutions to closing health care gaps, and to explore the role of pharmacists in reducing health care disparities,” says Hu.

Through interviews with pharmacists and physicians in mainland metropolitan areas with high Asian and Pacific Islander populations, Hu says he is looking to answer these questions: Are medications being appropriately prescribed by physicians? Are they being appropriately used by the patient? What can pharmacists, physicians and the College of Pharmacy do to contribute to the health of these people?

Other Research Areas

OMH has established partnerships with other universities to explore health disparities related to:

- cancer and tobacco use among Native Hawaiians and Pacific Islanders, conducted at the

University of Hawai’i at Manoa.

- health literacy and the use of prescription and over-the-counter medications in rural versus urban Hispanics in Nebraska, conducted at the University of Nebraska Medical Center. Hispanics are the fastest-growing minority group in Nebraska, according to the state’s Department of Health and Human Services.
- the effects of vaginal infections on contracting HIV infection, conducted at Meharry Medical College in Nashville, Tenn. African American women are more prone to HIV infection and vaginal infections caused by bacteria than are women of other races.

OMH is also working with the University of Maryland’s Center for Excellence in Regulatory Science and Innovation on research related to:

- practices and barriers to including minorities in clinical trials
- improving readability and cultural sensitivity in FDA consumer health materials
- attitudes of minorities in rural and urban areas in Maryland toward clinical trials and tissue donation
- antipsychotic use in youth in relation to racial and ethnic differences, insurance type and FDA labeled indication for use

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